

This only leaves the rejection of Claims 1-17 under 35 USC § 103(a), considered unpatentable over Aishima (US 3,926,873) in view of Metzemacher (US 5,827,906). While Applicant asserted that Aishima (directed to unsaturated organic acids) is not combinable with Metzemacher (directed to saturated fatty acids), the Examiner reconsidered Aishima and concluded that reactivity between calcium carbonate and fatty acid has nothing to do with unsaturation. The Examiner reasons that in a reaction according to Aishima water and carbon dioxide are evolved, suggesting that calcium carbonate reacts with the proton of the carboxylic group. The Examiner further reasons that the same effect would be expected with saturated fatty acids as they too contain carboxylic acid groups. The Examiner then concludes that one of ordinary skill in the art could utilize saturated fatty acids in order to promote processability of the composition of Aishima.

However, nowhere does Aishima disclose that merely a reaction of calcium carbonate with protons of carboxylic groups, if indeed such is occurring, is responsible for the effect of the invention. In fact, the teachings of Aishima indicate just the opposite. Not only does Aishima stress throughout the patent that the carboxylic acid used be unsaturated, but the disclosure shows that the invention of Aishima does not work when saturated carboxylic acids are used.

This important point is best illustrated using Aishima's own data. Example 1, Run No. 3 comprises a blend of a calcium carbonate-acrylic acid reaction product with polyethylene. References 4-1 and 4-2, which are outside the scope of the invention of Aishima and hence serve as comparative examples, are the same as Example 1, Run No. 3 except that the unsaturated acrylic acid of Example 1, Run No. 3 was replaced with the saturated propionic and stearic acids, respectively. Of particular significance, propionic acid is the saturated analog of acrylic acid, and therefore the only difference between the compositions of Example 1, Run No. 3 and Reference 4-1 is that the latter contains a saturated three-carbon carboxylic acid and the former contains an unsaturated three-carbon carboxylic acid. Both, of course, contain carboxylic acid groups and carboxylic acid protons. The physical testing results given in Tables 3 and 4 of Aishima clearly show that the composition containing the unsaturated acrylic acid has significantly greater impact resistance and tensile strength than the compositions containing the saturated propionic and stearic acids. These results are summarized in the following table.

Aishima Example	Carboxylic acid	Type of carboxylic acid	Tensile strength (kg/m ²)	Notched Izod impact strength (kg-cm/cm)
Example 1, Run No. 3, Table 1	Acrylic acid	Unsaturated	440	16.9
Reference 4-1, Table 4	Propionic acid	Saturated	194	1.6
Reference 4-2, Table 4	Stearic acid	Saturated	160	1.4

Thus, not only would one of ordinary skill in the art have had no motivation to use saturated carboxylic acids to practice the invention of Aishima, the disclosure of Aishima actually *teaches away* from the use of saturated carboxylic acids. One having ordinary skill in the art and working from Aishima would necessarily *avoid* the use of saturated carboxylic acids. Thus, it is quite surprising that the desirable effects of the present invention can be obtained by using saturated acids.

In view of the foregoing, allowance of the above-referenced application is respectfully requested.

Respectfully submitted,



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